3-month summary

- The chance of this period being warm is higher than normal
- However, near average temperatures is the most likely outcome
- The chances of either a dry or wet period are similar to normal
- Higher than normal chance of calm conditions during this period

3-month likelihood of impact

Temperature

15% chance the season will be COOL	50% chance the season will be NEAR AVERAGE	35% chance the season will be WARM
0.8× the normal chance	0.8× the normal chance	1.8× the normal chance

Precipitation

20% chance the season will be DRY	65% chance the season will be NEAR AVERAGE	15% chance the season will be WET
1.0× the normal chance	1.1× the normal chance	0.8× the normal chance

Wind speed

25% chance the season will be CALM	65% chance the season will be NEAR AVERAGE	10% chance the season will be WINDY
1.3× the normal chance	1.1× the normal chance	0.5× the normal chance

1-month summary

- Temperatures most likely to be near average during August
- However, there is a slight increase in the likelihood of a hot month
- Similar likelihood of either a wet or dry month
- Nevertheless, an increased chance of impacts from thundery downpours

1-month likelihood of impact

Temperature

15% chance the month will be COOL	55% chance the month will be NEAR AVERAGE	30% chance the month will be HOT
0.8× the normal chance	0.9× the normal chance	1.5× the normal chance

Precipitation

15% chance the month will be DRY	65% chance the month will be NEAR AVERAGE	20% chance the month will be WET
0.8× the normal chance	1.1× the normal chance	1.0× the normal chance

Wind speed

15% chance the month will be CALM	60% chance the month will be NEAR AVERAGE	25% chance the month will be WINDY
0.8× the normal chance	1.0× the normal chance	1.3× the normal chance

Understanding the Outlook

The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COOL, NEAR AVERAGE and WARM for 3-month temperature
COOL, NEAR AVERAGE and HOT for 1-month temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
WARM NEAR AVERAGE NEAR AVERAGE WARM NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WARM WARM
NEAR AVERAGE NEAR AVERAGE DRY DRY NEAR AVERAGE NEAR AVERAGE WET WET NEAR AVERAGE NEAR AVERAGE
NEAR AVERAGE NEAR AVERAGE CALM NEAR AVERAGE WINDY WINDY NEAR AVERAGE NEAR AVERAGE CALM NEAR AVERAGE

Same 1-month period over the last 10 years

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
NEAR AVERAGE COOL NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE HOT HOT NEAR AVERAGE HOT
DRY WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET WET DRY DRY
NEAR AVERAGE WINDY NEAR AVERAGE WINDY NEAR AVERAGE NEAR AVERAGE WINDY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE

Outlook in context

Drivers of UK weather for August to October
The impact of global weather patterns on the UK is small through this period. Drivers relevant to the current Outlook are:
• The warming of UK climate consistent with wider global warming trends.
• El Niño continues to develop in the Pacific Ocean. Impacts on the UK, at this time of year, are small.
• Sea-surface temperatures around the UK are above average, favouring above average land temperatures.
• Atlantic Tropical Cyclones – the season usually peaks in August and September and is forecast to have above average activity, this acting to reduce confidence in the forecast.

Long-range weather predictions
The Met Office and other prediction centres around the world routinely produce long-range predictions of conditions in the months ahead. Predictability is typically lower at this time of year, reflected by only weak signals in current model output. The main signals for August are for low pressure to be near the UK suggesting an unsettled pattern with increased risk of thunderstorms. The pattern is most likely to trend towards a more easterly flow regime through September and October and a more balanced rainfall outlook. With warmer than average sea surface temperatures in the vicinity of the UK, the chances of a warm August to October are slightly higher than normal.

Impact
Despite only small shifts in the likelihood of wet and dry compared to normal in August, given the most likely prevailing weather patterns, impacts from thunderstorms, such as flash flooding, remain possible. There is also a small increase in the chance of heatwaves during August, although the overall risk is not as high as in recent years. For the period as a whole, the increased likelihood of easterly winds means that, whilst UK-wide rainfall is most likely to be near normal, some large regional variations are possible. Southern and eastern areas are more likely to be wetter than normal, with northern and western areas more likely to be drier than normal. An increased chance of warm conditions through August to October is consistent with higher-than-average sea surface temperatures and our warming climate.

Outlook compared to normal likelihood

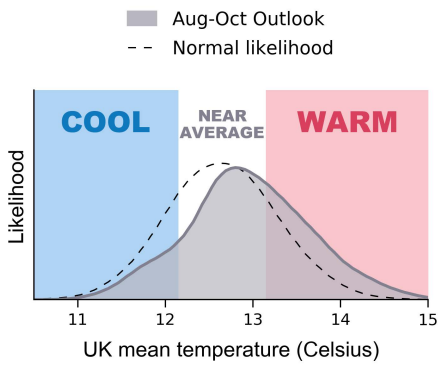
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

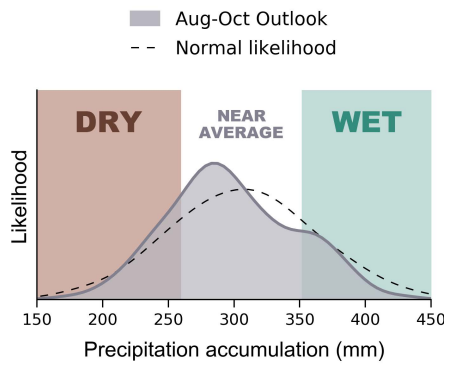
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



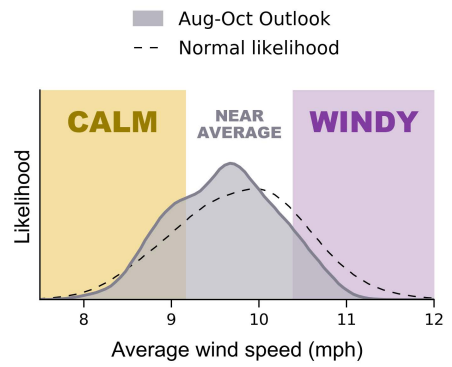
Likelihood leans towards warm

3-month precipitation Outlook compared to normal



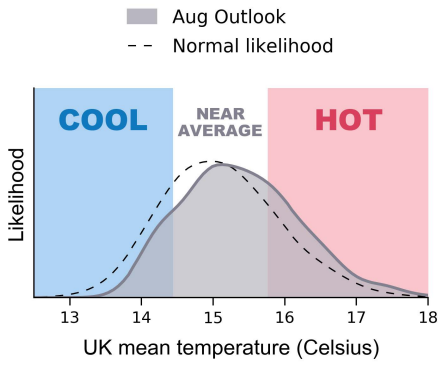
Likelihoods of dry and wet are similar

3-month wind speed Outlook compared to normal



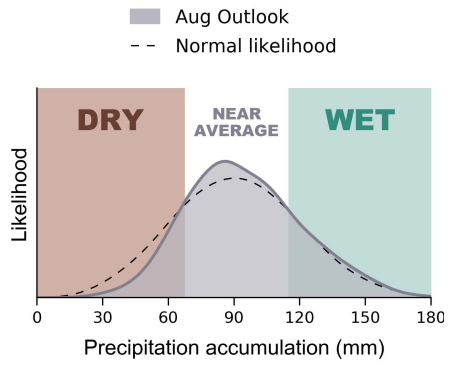
Likelihood leans towards calm

1-month temperature Outlook compared to normal



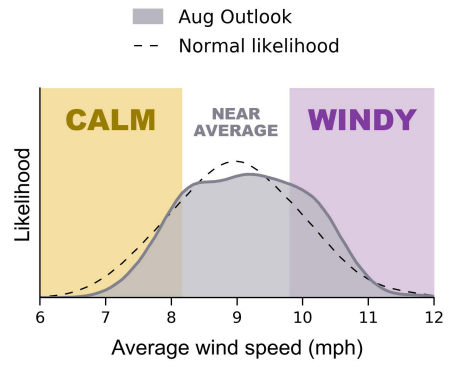
Likelihood leans slightly towards hot

1-month precipitation Outlook compared to normal



Likelihoods of dry and wet are similar

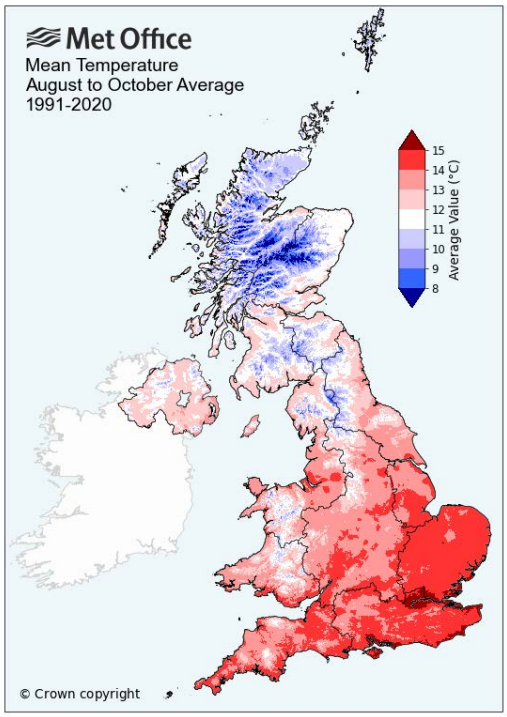
1-month wind speed Outlook compared to normal



Likelihood leans slightly towards windy

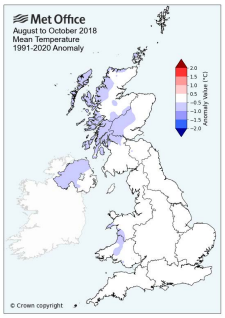
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.

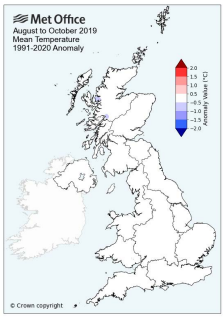


Average temperatures for August - October based on observations of past years.

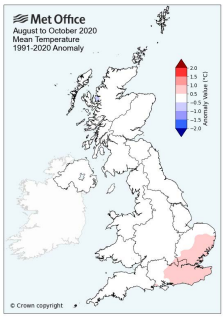
Last 5 years temperatures, difference from average (3-month)



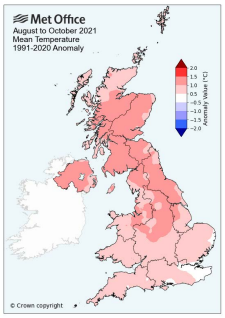
Aug - Oct 2018



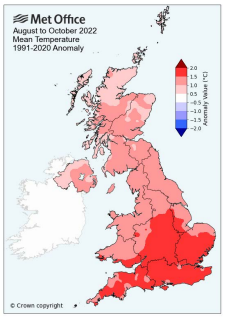
Aug - Oct 2019



Aug - Oct 2020



Aug - Oct 2021



Aug - Oct 2022

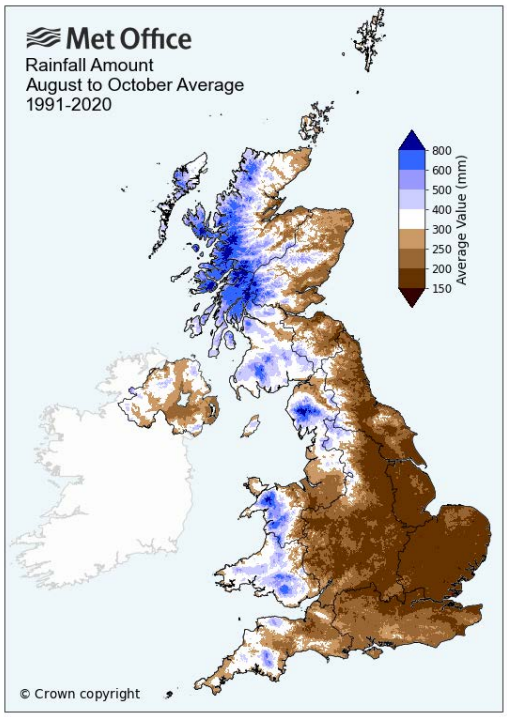
Anomaly (°C)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to-0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> 2.0

These maps show how August - October temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

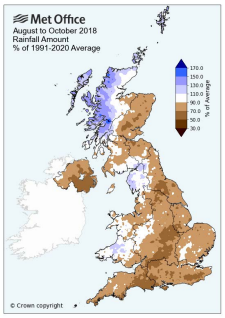
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.

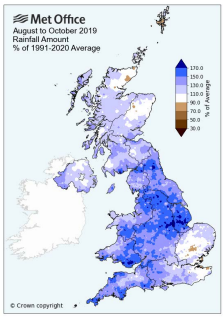


Average precipitation for August - October based on observations of past years.

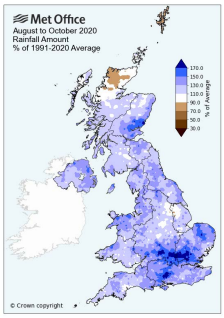
Last 5 years precipitation, difference from average (3-month)



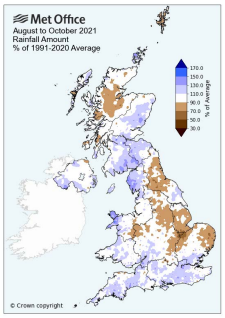
Aug - Oct 2018



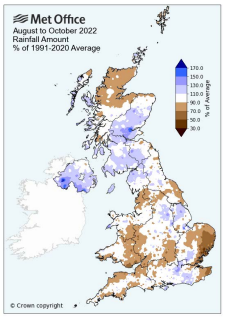
Aug - Oct 2019



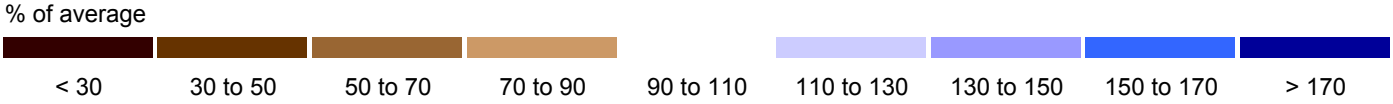
Aug - Oct 2020



Aug - Oct 2021



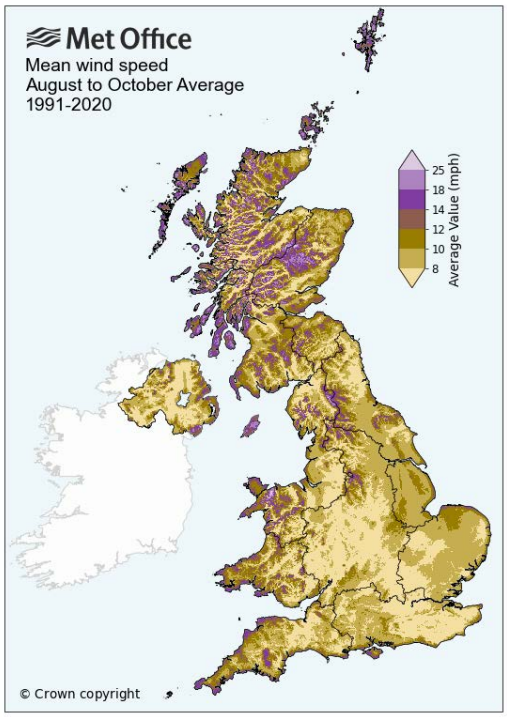
Aug - Oct 2022



These maps show how August - October precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

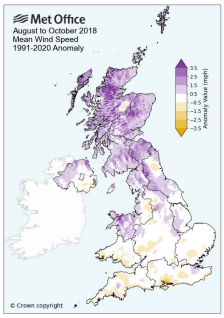
Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.

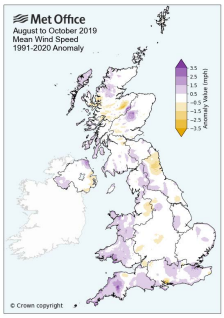


Average wind speed for August - October based on observations of past years.

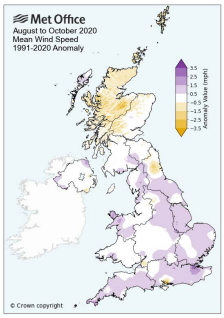
Last 5 years wind speed, difference from average (3-month)



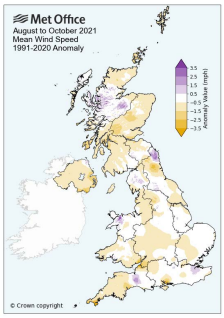
Aug - Oct 2018



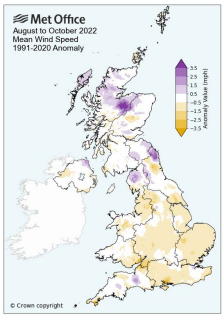
Aug - Oct 2019



Aug - Oct 2020



Aug - Oct 2021



Aug - Oct 2022

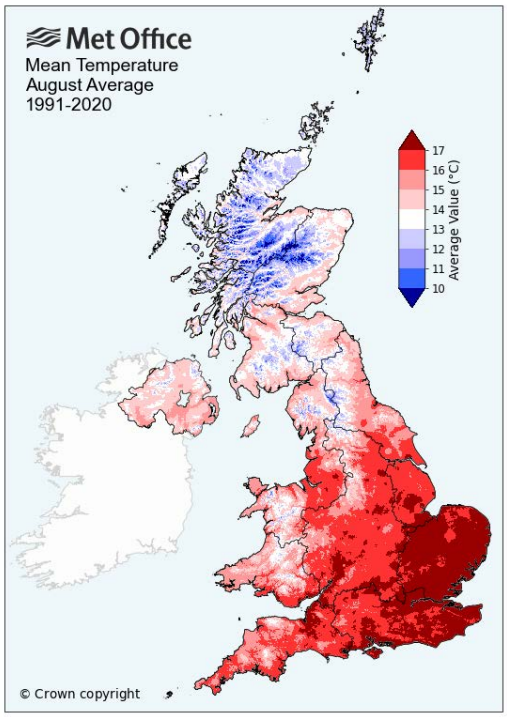
Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how August - October wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

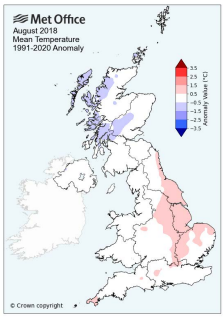
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.

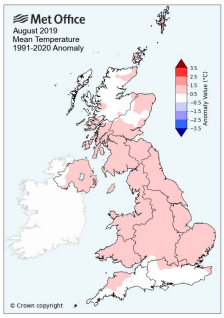


Average temperatures for August based on observations of past years.

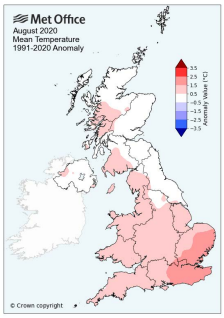
Last 5 years temperatures, difference from average (1-month)



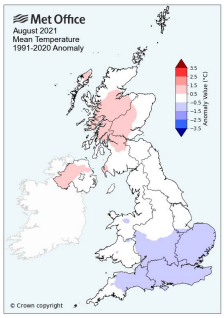
Aug 2018



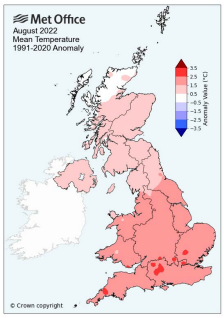
Aug 2019



Aug 2020



Aug 2021



Aug 2022

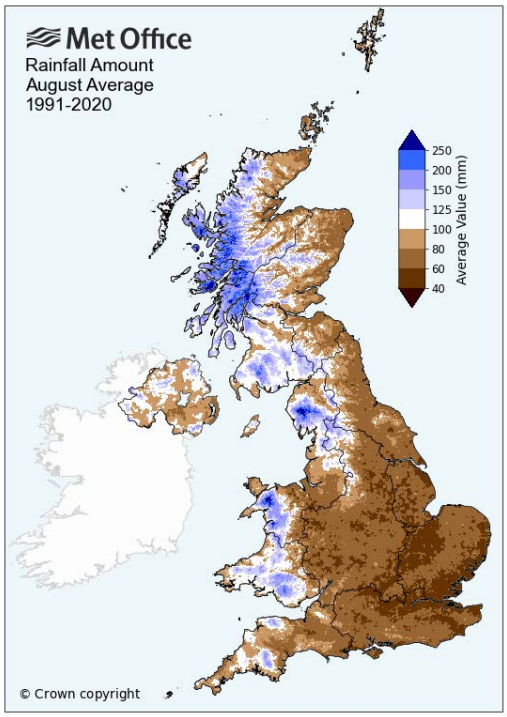
Anomaly (°C)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how August temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

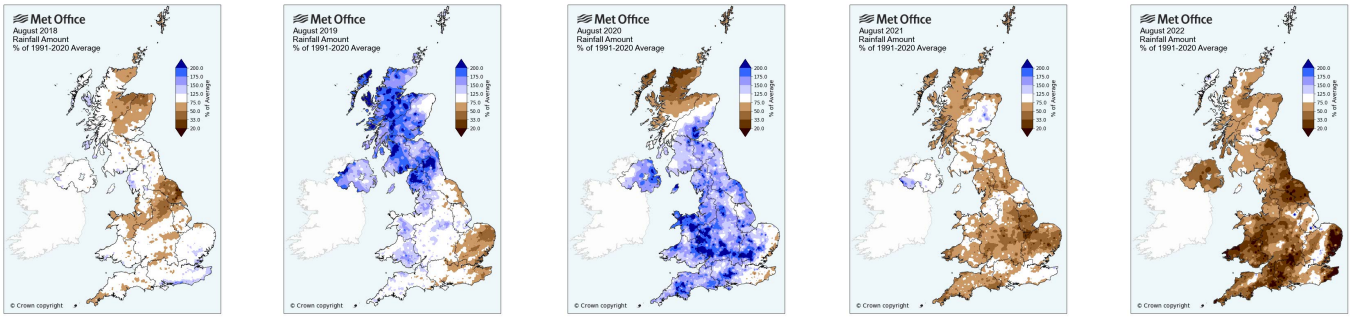
Long-term average precipitation (1-month)

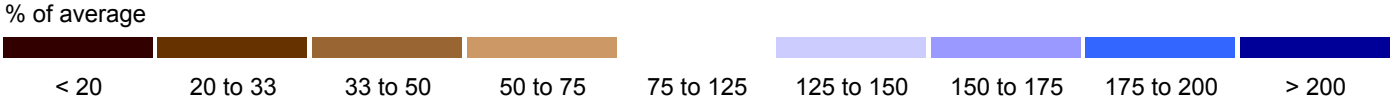
This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.



Average precipitation for August based on observations of past years.

Last 5 years precipitation, difference from average (1-month)

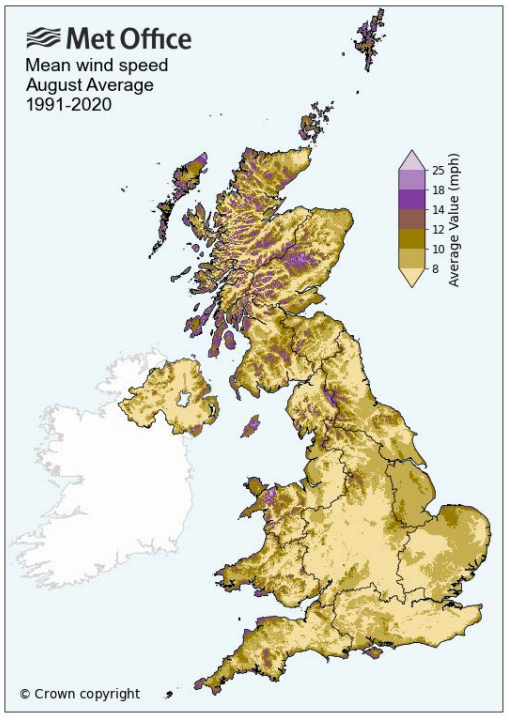




These maps show how August precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

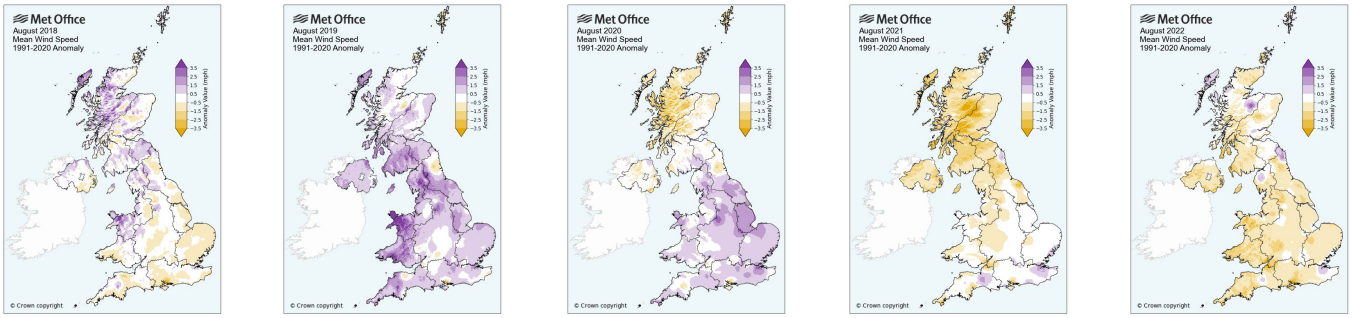
Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1-month Outlook period.



Average wind speed for August based on observations of past years.

Last 5 years wind speed, difference from average (1-month)



Aug 2018 | Aug 2019 | Aug 2020 | Aug 2021 | Aug 2022

Anomaly (mph)

< -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5

These maps show how August wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Will we see any heatwaves?
A. Although there's an increase in the chance of the 3-month period being warmer than normal, near-average temperatures remain the most likely outcome. An increased chance of hot conditions could just as easily reflect a mix of hot and cool days, warm nights, or less extreme levels of warmth rather than heatwave conditions specifically. The Outlook does not guarantee prolonged hot weather and does not imply continuous heatwave conditions, though warm spells remain possible during the outlook period.

Q. What impact does the developing El Niño have on this outlook?
A. The El Niño is continuing to develop in the Pacific Ocean. However, impacts on the UK weather at this time of year from this developing event are small, with other drivers holding greater influence over the UK's weather patterns.

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

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Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.